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Name of Apaclamt, assigner or registered representative

Signature

February 23, 2004 Date of Signature

> PATENT PHB 34,367 (7790/175)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent a	pplication of:)
KEVIN R. BOYLE))
Serial No.:	09/616,635) Examiner: RAMPURIA, SHARAD) Group Art Unit: 2683)
Filed:	JULY 26, 2000	
For: BODY-WORN PERSONAL COMMUNICATION APPARATUS)))

APPEAL BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Appellant herewith respectfully presents a Brief on Appeal as follows:

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1. **REAL PARTY IN INTEREST**

The real party in interest is Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA. Koninklijke Philips Electronics N.V. is the ultimate parent of the assignee of record Philips Electronics North America Corporation, a Delaware corporation having an office and a place of business at 1251 Avenue of the Americas, New York, NY 10020-1104. Philips Electronics North America Corporation intends to further assign this application to Koninklijke Philips Electronics N.V.

2. RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

3. **STATUS OF CLAIMS**

Claims 1-18 are currently the claims pending in the application, and are the claims on appeal. See, the Appendix. Claims 1, 2, 5, 7, 9-11, 14, 17 and 18 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,467,324 to Houlihan in view of U.S. Patent No. 6,028,556 to Shiraki. Claims 3 and 12 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over Houlihan in view of Shiraki and in further view of U.S. Patent No. 6,429,829 B1 to Hirai et al. Claims 4 and 13 stand



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finally rejected under 35 U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* and in further view of PCT Publication WO 00/13329 to *Barnard*. Claims 6,8,15 and 16 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* and in further view of Great Britain Patent 2036447 to *McLean*.

4. <u>STATUS OF AMENDMENTS</u>

A non-final request for reconsideration under 37 C.F.R. §1.112 involving amendments to claims 1-9 and an addition of claims 10-18 was filed on 7/28/2003 and entered into the application by Examiner Rampuria.

An after final request for reconsideration under 37 C.F.R. §1.116 was filed on 11/25/2003, but was not entered into the application by Examiner Rampuria.

5. SUMMARY OF THE INVENTION

As illustrated in FIGS. 1 and 4, a body-worn personal communications apparatus employs a physically-shortened electric antenna 102, a transceiver 104 connected to antenna 102, a microphone 114 connected to transceiver 104, and a casing 202. See, U.S. Patent Application Serial No. 09/970,960 at page 3, line 25 to page 4, line 15.

Transceiver 104 is disposed within casing 202.

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Antenna 102 is mounted on casing 202. As best illustrated in FIG. 3, antenna 102 is mounted transversely to a plane through casing 202. See, U.S. Patent Application

Serial No. 09/970,960 at page 4, lines 16-25.

In one embodiment, microphone 114 is mounted on antenna 102 as illustrated in FIG. 4. To this end, microphone 114 is located at an end of antenna 114 furthest from casing 202, antenna 102 is formed from a coaxial cable that provides electrical connections between microphone 114 and transceiver 104, and microphone 114 provides a top loading to antenna 102. An embodiment of antenna 102 in this configuration is formed from a hollow wire that provides electrical connections between microphone 114 and transceiver 104. See, U.S. Patent Application Serial No. 09/970,960 at page 6, line 28 to page 7, line 26.

6. ISSUE

Whether claims 1-18 are patentable over Houlihan in view of Shiraki.

7. GROUPING OF CLAIMS

Claims 1-18 should be considered in six (6) groups.

Claim group I includes independent claims 1 and 10, and dependent claims 2, 3, 8, 11, 12, and 16.

Claim group II includes dependent claims 4 and 13.

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Claim group III includes dependent claims 5 and 14.

Claim group IV includes dependent claims 6 and 15.

Claim group V includes dependent claims 7 and 17.

Claims group VI includes dependent claims 9 and 18.

8. ARGUMENTS

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, MPEP §2143.

The Appellant respectfully traverses this §103(a) rejection of independent claims 1 and 10, because Houlihan and Shiraki in combination fail to disclose, teach or suggest "wherein said microphone is mounted on said physically-shortened antenna" as recited in independent claim 1, and "a microphone mounted on said physically-shortened electric antenna" as recited in independent claim 10.

As to the traversal, Examiner Rampuria has correctly recognized the failure of Houlihan to disclose, teach or suggest a microphone mounted on a physically-shortened antenna as required by independent claims 1 and 10. Additionally, a proper reading of

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Shiraki reveals that Shiraki fail to disclose and teaches away from a microphone mounted on a physically-shortened antenna as required by independent claims 1 and 10.

Specifically, as illustrated in FIG. 2, Shiraki discloses a physically-shortened antenna 10 helically formed from a linear conductive material to thereby define an aircore. One end of antenna 10 is in electrically contact with the main body 2 via rod 12. See, Shiraki at column 4, lines 53 to 61.

To minimize the size of a cylinder 8 of rod 12, Shiraki teaches microphone 7 being disposed within the air core of antenna 10 with one end of microphone 7 being connected via lead lines 9 to an electric circuit (not shown) located within body 2 through rod 12. See, Shiraki at column 4, line 62 to column 5, line 11. Essentially, Shiraki has mounted antenna 10 on microphone 7 as opposed to mounting microphone 7 on antenna 10 as required by independent claims 1 and 12. Consequently, from FIG. 2 and its corresponding description, Shiraki clearly fail to teach or suggest antenna 10 mounted transversely through a plane in body 2, microphone 7 being located at an end of antenna 10 furthest from body 2, any type of electrical connections between microphone 7 and the electric circuit as provided by antenna 10, and any type of loading relationship between microphone 7 and antenna 10.

Furthermore, the Appellant respectfully asserts that a removal of microphone 7 from the air core of antenna 10 to thereby mount microphone 7 onto antenna 10 would increase the length of cylinder 8. Minimizing the size of cylinder 8 is taught by Shiraki, Thus, Shiraki teaches away from mounting microphone 7 onto antenna 10.



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Withdrawal of the rejection of independent claims 1 and 10 under U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* is therefore respectfully requested.

Claims 2, 5, 7, and 9 depend from independent claim 1. Therefore, dependent claims 2, 5, 7 and 9 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Appellant that dependent claims 2, 5, 7 and 9 are allowable over *Houlihan* in view of *Shiraki* for at least the same reason as set forth herein with respect to independent claim 1 being allowable over *Houlihan* in view of *Shiraki*. Moreover, *Houlihan* and *Shiraki* in combination fail to disclose and teach away from "wherein said microphone is located at an end of said physically-shortened electric antenna furthest from said casing" as recited in dependent claim 5, "wherein a first electrical connection between said microphone and said transceiver is provided by said hollow wire" and "wherein a second electrical connection between said microphone and said transceiver is provided by a conductor enclosed by said hollow wire" as recited in dependent claim 7, and "wherein said microphone provides a top loading to said physically-shortened electric antenna" as recited in dependent claim 9.

Withdrawal of the rejection of dependent claims 2, 5, 7 and 9 under U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* is therefore respectfully requested.



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Claims 11, 14, 17 and 18 depend from independent claim 10. Therefore, dependent claims 11, 14, 17 and 18 include all of the elements and limitations of independent claim 10. It is therefore respectfully submitted by the Appellant that dependent claims 11, 4, 17 and 18 are allowable over *Houlihan* in view of *Shiraki* for at least the same reason as set forth herein with respect to independent claim 10 being allowable over *Houlihan* in view of *Shiraki*. Moreover, *Houlihan* and *Shiraki* in combination fail to disclose and teach away from "wherein said microphone is located at an end of said physically-shortened electric antenna furthest from said casing" as recited in dependent claim 14, "wherein a first electrical connection between said microphone and said transceiver is provided by said hollow wire" and "wherein a second electrical connection between said microphone and said transceiver is provided by a conductor enclosed by said hollow wire" as recited in dependent claim 17, and "wherein said microphone provides a top loading to said physically-shortened electric antenna" as recited in dependent claim 18.

Withdrawal of the rejection of dependent claims 11, 14, 17 and 18 under U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* is therefore respectfully requested.

Claim 3 depends from independent claim 1. Therefore, dependent claim 3 includes all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Appellant that dependent claim 3 is allowable over

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Houlihan in view of Shiraki and in further view of Hirai for at least the same reason as set forth herein with respect to independent claim 1 being allowable over Houlihan in view of Shiraki. Withdrawal of the rejection of dependent claim 3 under U.S.C. §103(a) as being unpatentable over Houlihan in view of Shiraki and in further view of Hirai is therefore respectfully requested.

Claim 12 depends from independent claim 10. Therefore, dependent claim 12 includes all of the elements and limitations of independent claim 10. It is therefore respectfully submitted by the Appellant that dependent claim 12 is allowable over *Houlihan* in view of *Shiraki* and in further view of *Hirai* for at least the same reason as set forth herein with respect to independent claim 10 being allowable over *Houlihan* in view of *Shiraki*. Withdrawal of the rejection of dependent claim 12 under U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* and in further view of *Hirai* is therefore respectfully requested.

Claim 4 depends from independent claim 1. Therefore, dependent claim 4 includes all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Appellant that dependent claim 4 is allowable over *Houlihan* in view of *Shiraki* and in further view of *Barnard* for at least the same reason as set forth herein with respect to independent claim 1 being allowable over *Houlihan* in view of *Shiraki*. Moreover, *Houlihan* and *Shiraki* in combination fail to disclose and

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teach away from "wherein said physically-shortened electric antenna is mounted transversely to a plane through said casing" as recited in dependent claim 4.

Withdrawal of the rejection of dependent claim 4 under U.S.C. §103(a) as being unpatentable over Houlihan in view of Shiraki and in further view of Barnard is therefore respectfully requested.

Claim 13 depends from independent claim 10. Therefore, dependent claim 13 includes all of the elements and limitations of independent claim 10. It is therefore respectfully submitted by the Appellant that dependent claim 13 is allowable over Houlihan in view of Shiraki and in further view of Barnard for at least the same reason as set forth herein with respect to independent claim 10 being allowable over Houlihan in view of Shiraki. Moreover, Houlihan and Shiraki in combination fail to disclose and teach away from "wherein said physically-shortened electric antenna is mounted transversely to a plane through said casing" as recited in dependent claim 13.

Withdrawal of the rejection of dependent claim 13 under U.S.C. §103(a) as being unpatentable over Houlihan in view of Shiraki and in further view of Barnard is therefore respectfully requested.

Claims 6 and 8 depend from independent claim 1. Therefore, dependent claims 6 and 8 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Appellant that dependent claims 6 and 8 are allowable over

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Houlihan in view of Shiraki and in further view of McLean for at least the same reason as set forth herein with respect to independent claim 1 being allowable over Houlihan in view of Shiraki. Moreover, Houlihan and Shiraki in combination fail to disclose and teach away from "wherein said physically-shortened electric antenna is formed from a coaxial cable that provides electrical connections between said microphone and said transceiver" as recited in dependent claim 6.

Withdrawal of the rejection of dependent claims 6 and 8 under U.S.C. §103(a) as being unpatentable over Houlihan in view of Shiraki and in further view of McLean is therefore respectfully requested.

Claims 15 and 16 depend from independent claim 10. Therefore, dependent claims 15 and 16 include all of the elements and limitations of independent claim 10. It is therefore respectfully submitted by the Appellant that dependent claims 15 and 16 are allowable over Houlihan in view of Shiraki and in further view of McLean for at least the same reason as set forth herein with respect to independent claim 10 being allowable over Houlihan in view of Shiraki. Moreover, Houlihan and Shiraki in combination fail to disclose and teach away from "wherein said physically-shortened electric antenna is formed from a coaxial cable that provides electrical connections between said microphone and said transceiver" as recited in dependent claim 15.



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Withdrawal of the rejection of dependent claims 15 and 16 under U.S.C. §103(a) as being unpatentable over *Houlihan* in view of *Shiraki* and in further view of *McLean* is therefore respectfully requested.

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Respectfully submitted, Kevin R. Boyle

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<u>APPENDIX</u>

- 1. A body-worn personal communications apparatus, comprising:
 - a physically-shortened electric antenna;
 - a transceiver connected to said physically-shortened electric antenna;
 - a microphone connected to said transceiver; and
 - a casing,

wherein said transceiver is disposed within said casing,
wherein said physically-shortened electric antenna is mounted on said
casing, and

wherein said microphone is mounted on said physically-shortened antenna.

- 2. The apparatus of claim 1, wherein said physically-shortened electric antenna is a helical antenna.
- 3. The apparatus of claim 1, wherein said physically-shortened electric antenna is a meander-line antenna.
- 4. The apparatus of claim 1, wherein said physically-shortened electric antenna is mounted transversely to a plane through said casing.

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- 5. The apparatus of claim 1, wherein said microphone is located at an end of said physically-shortened electric antenna furthest from said casing.
- 6. The apparatus of claim 5, wherein said physically-shortened electric antenna is formed from a coaxial cable that provides electrical connections between said microphone and said transceiver.
- 7. The apparatus of claim 5, wherein said physically-shortened electric antenna is formed from a hollow wire, wherein a first electrical connection between said microphone and said transceiver is provided by said hollow wire, and

wherein a second electrical connection between said microphone and said transceiver is provided by a conductor enclosed by said hollow wire.

- 8. The apparatus of claim 6, wherein said microphone provides a low impedance at radio frequencies to thereby enable said coaxial cable forming said physically-shortened electric antenna to act as an inductive stub.
- The apparatus of claim 5, wherein said microphone provides a top loading to said 9. physically-shortened electric antenna.

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- 10. A body-worn personal communications apparatus, comprising:
 - a casing;
 - a physically-shortened electric antenna mounted on said casing; and
 - a microphone mounted on said physically-shortened electric antenna.
- 11. The apparatus of claim 10, wherein said physically-shortened electric antenna is a helical antenna.
- 12. The apparatus of claim 10, wherein said physically-shortened electric antenna is a meander-line antenna.
- 13. The apparatus of claim 10, wherein said physically-shortened electric antenna is mounted transversely to a plane through said casing.
- 14. The apparatus of claim 10, wherein said microphone is located at an end of said physically-shortened electric antenna furthest from said casing.
- 15. The apparatus of claim 10, further comprising:a transceiver,

wherein said physically-shortened electric antenna is formed from a coaxial cable that provides electrical connections between said microphone and said

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transceiver.

- 16. The apparatus of claim 15, wherein said microphone provides a low impedance at radio frequencies to thereby enable said coaxial cable forming said physically-shortened electric antenna to act as an inductive stub.
- 17. The apparatus of claim 10, further comprising:
 a transceiver.

wherein said physically-shortened electric antenna is formed from a hollow wire,

wherein a first electrical connection between said microphone and said transceiver is provided by said hollow wire, and

wherein a second electrical connection between said microphone and said transceiver is provided by a conductor enclosed by said hollow wire.

18. The apparatus of claim 10, wherein said microphone provides a top loading to said physically-shortened electric antenna.